

REMARKS

Claims 1-4, 6-11, 13-16 and 18-23 stand rejected as being unpatentable over U.S. Pat No. 6,598,179 (Chirashnya) in view of U.S. Pat. No. 6,256,594 (Yamamoto). Claims 5, 12, 17 and 24 stand objected to but would be allowable if rewritten in independent form including the limitations of the base claims and any intervening claims. Reconsideration of the rejections and objections is solicited in view of the foregoing amendments and the following remarks.

Applicant submits with this response a copy of the technical paper cited in the original IDS and kindly requests that this paper be considered.

Pursuant to the issues identified in paragraph 2 of the Office Action, the specification has been amended to make the textual description consistent with certain reference characters shown in the drawings but left out from the original textual description. Applicant respectfully submits that in view of the foregoing amendment to the specification the objection to the drawings has been mooted and this objection should be removed.

The specification has been further amended to correct the informalities identified in paragraph 3 of the Office Action and thus this objection should be removed.

Claims 9 and 21 have been amended as suggested by the Examiner to remove the objection regarding lack of antecedent basis for the phrase "wherein the respective continuous observations of operational parameters".

As suggested in the Office Action, claims 5, 12, 17 and 24 have been rewritten in independent form including the limitations of the base claims and any intervening claims. Consequently, these claims are in form ready for allowance.

Base claims 1, 10, 13 and 22 have been amended to capture aspects of the present invention that are neither taught nor suggested by the prior art of record. Claim 1 is directed to a method for processing in a diagnostics processor fault log data from a machine comprising a plurality of respective pieces of equipment. The method further processes operational parameter data indicative

of operational and/or environmental conditions for the respective pieces of equipment. The operational parameter data is encoded to operate as fault log data in order to be processed by the diagnostics processor jointly with the fault log data to generate diagnostics information for the respective pieces of equipment. Chirashnya is directed to a method for diagnosing faults in a computer-based system. The Office Action correctly acknowledges that Chirashnya fails to disclose any processing of operational parameter data. The Office Action then applies Yamamoto to purportedly overcome the deficiencies of Chirashnya. However, as set forth in greater detail below, Yamamoto fails to overcome the deficiencies of Chirashnya.

Yamamoto expressly states that his invention is intended to determine whether or not snapshot data should be requested from a vehicle to a monitoring station. This allows minimizing the amount of data and memory storage volume in the monitoring station. See for example abstract of Yamamoto and column 2, lines 16-28 of Yamamoto. Although Yamamoto uses values of a set of operating parameters and a status code which indicates the status at the time a fault occurs, the basic fact remains that Yamamoto uses that information just for determining whether or not a transmission of snapshot data should be made from the vehicle to the monitoring station. Significantly, however, Yamamoto fails to teach the processing of a plurality of cases with a diagnostics processor that jointly processes fault log data and operational parameter data (encoded to operate as fault log data) to generate a plurality of weighted repair and distinct fault cluster combinations encoded with operational parameter state data. That is, aspects of the present invention essentially transform the operational parameter data into virtual faults so that the same case-based reasoning techniques used for processing the fault log data can be used for processing fault clusters encoded with operational parameter state data in order to generate diagnostics information for the equipment undergoing diagnostics. Again, Yamamoto's approach is to make a determination as to whether or not snapshot data should be transmitted from the vehicle to the monitoring station. Yamamoto does not process fault log data and operational parameter data (encoded to

operate as fault log data) to generate diagnostics information. Applicant surmises that if once a determination is made by Yamamoto to transmit snapshot data to the monitoring center, then one can speculate as to the use of such snapshot data. However, this is beyond the scope of the description presented in the four corners of the Yamamoto reference being that Yamamoto is essentially concerned just with determining whether or not a transmission of snapshot data should be made from the vehicle to the monitoring station. In view of the foregoing remarks, it is respectfully submitted that neither Chirashnya nor Yamamoto, singly or in combination, discloses or suggests the structural and/or operational relationship set forth in amended claim 1. Accordingly, claim 1 is not rendered unpatentable by the Chirashnya/Yamamoto combination and applicant requests that claim 1 be allowed. Since each of the claims that depend from claim 1 include the structural and/or operational relationship set forth in amended claim 1, such claims also are not rendered unpatentable by the Chirashnya/Yamamoto combination, and they should also be allowed.

Amended claim 10 is directed to a method for processing in a diagnostics processor fault log data from a machine comprising a plurality of respective pieces of equipment. The method further processes operational parameter data indicative of operational and/or environmental conditions for the respective pieces of equipment. The operational parameter data is encoded to be processed by the diagnostics processor in combination with the fault log data to generate diagnostics information for the respective pieces of equipment. In view of the foregoing remarks, it is submitted that claim 10 (and claims depending therefrom) are not rendered unpatentable by the Chirashnya/Yamamoto combination and applicant requests that such claims be allowed.

Amended claim 13 is directed to a system for processing in a diagnostics processor fault log data from a machine comprising a plurality of respective pieces of equipment. The system further processes operational parameter data indicative of operational and/or environmental conditions for the respective pieces of equipment. The operational parameter data is encoded to be processed by the diagnostics processor in combination with the fault log data to

generate diagnostics information for the respective pieces of equipment. For reasons discussed above, it is submitted that claim 13 (and any claims depending therefrom) are not rendered unpatentable by the Chirashnya/Yamamoto combination and applicant requests that such claims be allowed.

Amended claim 22 is directed to an article of manufacturing comprising a computer-readable medium including computer-readable program code for causing a computer to process in a diagnostics processor fault log data from a machine comprising a plurality of respective pieces of equipment. The computer-readable program code further causes the computer to process operational parameter data indicative of operational and/or environmental conditions for the respective pieces of equipment. For reasons discussed above, it is submitted that claim 22 (and any claims depending therefrom) are not rendered unpatentable by the Chirashnya/Yamamoto combination and applicant requests that such claims be allowed.

It is respectfully submitted that each of the claims pending in this application recites patentable subject matter and it is further submitted that such claims comply with all statutory requirements and thus each of such claims should be allowed.

The applicant appreciates the Examiner's efforts for conducting a thorough examination, and cordially invites the Examiner to call the undersigned attorney if there are any outstanding items that may be resolved via telephone conference.

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Respectfully submitted,



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